

ABSTRACT

The present invention provides a system and method of identifying a failure location in a datapath in a communication element, the datapath traversing from an ingress point through at least a first component to an egress point. In an embodiment the method comprises: providing a
5 diagnostic cell to adapted to be inserted at a startpoint upstream of the first component in the datapath; providing at least a first diagnostic cell counter module adapted to be associated with a first location in the first component, the first diagnostic cell counter module being adapted to recognize when the diagnostic cell passes the first location and being adapted to track passage of the diagnostic cell past the first location; inserting the diagnostic cell into the datapath at the starting point; and analyzing the diagnostic cell counter module to identify the failure location in the datapath.